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(54) Title: METHODS AND COMPOSITIONS CONCERNING POXVIRUSES AND CANCER

(57) **Abstract:** The present invention concerns methods and compositions for the treatment of cancer and cancer cells using altered poxviruses, including a vaccinia virus that has been altered to generate a more effective therapeutic agent. Such poxviruses are engineered to be attenuated or weakened in their ability to affect normal cells. In some embodiments, methods and compositions involve poxviruses that possess mutations that result in poxviruses with diminished or eliminated capability to implement an antiviral response in a host. Poxviruses with these mutations in combination with other mutations can be employed for more effective treatment of cancer.

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